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## ELEOCHARIS TUBERCULOSA IN NEW HAMPSHIRE.

## ARTHUR STANLEY PEASE.

On 28 July, 1923, I chanced to be detained for a few hours in the rain at Mt. Whittier (West Ossipee), N. H., and recollecting that a fisherman had told me that White Lake in Tamworth was lined by a sandy beach I decided to improve the time by hunting it up. The pond lies about a mile from West Ossipee village, in the midst of wooded sandy plains which are characteristic of much of the country immediately to the south of Chocorua and Pequawket Mountains. It rained too hard for me to explore much of the strand, but at one point, on the southwest side, at the upper edge of a beach of fine white sand, I came upon two plants which struck me as novelties for the region, one being Xyris caroliniana Walt. and the other an Eleocharis unfamiliar to me. This, when I was later able to examine it with a lens, proved to be E. tuberculosa (Michx.) R. & S., made perfectly distinctive, though still very immature, by the enormous tubercles upon the achenes. This species has not been previously reported north of Massachusetts, save for its discovery by Messrs. Fernald and Long in Shelburne Co., N. S., and it seemed worth while to secure better material. Accordingly on 23 August I visited White Lake again, finding the Eleocharis in excellent condition and the Xyris in fruit, with Cyperus dentatus Torr. and Solidago tenuifolia Pursh nearby, on the upper edge of the beach. Among the dense yellow masses of Gratiola aurea Muhl. which covered other parts of the damp sands was a considerable area of a form with creamy white flowers, forma helveola Bartlett, and near it, just above or just be ow the water-line, Isoetes Tuckermani A. Br. and Myriophyllum tenellum Bigel., while in the shallow water on the sandy bottom Elatine minima (Nutt.) Fisch. & Meyer was abundant.

Encouraged by these outliers of the coastal plain flora at the very foot of the White Mountains, I then visited some of the other ponds and lakes in the region. On the west side of Lake Ossipee I was rewarded by finding, on the sandy beaches, not only Solidago tenuifolia, as at White Lake, but also Panicum spretum Schultes, Hemicarpha micrantha (Vahl) Pax (which I had previously found in abundance near the monument commemorating Lovewell's fight with the Indians, at the north end of Lovewell Pond in Fryeburg, Maine), and Eleocharis diandra C. Wright, known from the sands of the lower

Androscoggin, the lower Merrimac, and well inland along the Connecticut. Notable also, though not abundant, was *Scirpus Smithii* Gray. In a previous visit, at the northwest corner of Lake Ossipee, I had found *Myriophyllum tenellum* also.

Province Lake in Wakefield proved, at least on its sandy southern side, where I was able to examine it, of less interest, though Solidago tenuifolia was present there, as I fancy it is at many of the ponds of the region (I have found it at Lovewell Pond and at Silver Lake in Madison). More interesting to me, however, and more common than at the other ponds I visited was Scirpus Smithii, and not far from it, abundant but not at all conspicuous, was Subularia aquatica L., a representative of a northern aquatic flora appearing a little out of place among its coastal plain neighbors.

A few moments of collecting on the west shore of Mirror Lake in Tuftonborough yielded Subularia and Myriophyllum tenellum again, and a single plant of Scirpus Smithii was the first thing to greet me on the sandy north end of Lake Wentworth in Wolfeborough, where approaching dusk cut short my collecting just when it began to promise well.

These interesting features of a hasty sampling, during parts of two days, of very restricted portions of a few of the many ponds in the east central region of New Hampshire suggest that more prolonged and careful investigation might furnish valuable and perhaps surprising results for our knowledge of the distribution of coastal plain extensions in a district comparatively neglected by botanical collectors. Specimens of the plants mentioned in this article have been deposited in the herbarium of the New England Botanical Club, and for assistance in the determination and verification of several of them I am greatly indebted to Professor Fernald.

URBANA, ILLINOIS.

Two more Wool-waste Plants from Westford, Mass.—In going over the herbarium of the late Emily F. Fletcher, two wool-waste plants have been detected which it may be worth while to record by way of completing the list of her "finds" published by her-